Weekly Influenza Surveillance Report

Maryland Department of Health and Mental Hygiene | Infectious Disease and Environmental Health Administration
Office of Infectious Disease Epidemiology and Outbreak Response

SYNOPSIS

During week 42 in Maryland, three hospitalizations associated with influenza were reported. No outbreaks of influenza or influenza-like illness (ILI) were reported. The proportion of visits to providers for ILI was below baseline, and the proportion of Maryland residents reporting ILI was also low. Given this information, influenza activity in Maryland for week 42 was **SPORADIC**, the same level as last week, with small numbers of laboratory-confirmed influenza and no increase in the proportion of visits to sentinel providers due to ILI.

Starting with the current influenza reporting season, CDC is reporting one more indicator of flu activity. Using data from ILINet sentinel providers, CDC is reporting the level of "ILI activity" by state. According to CDC, "activity levels are based on the percent of outpatient visits in a state due to ILI and are compared to the average percent of ILI visits that occur during spring and fall weeks with little or no influenza virus circulation." In short, this indicator gives a glimpse at how much ILI is being seen in the different states.

INFLUENZA-LIKE ILLNESS SURVEILLANCE (ILINet)

A total of 12 sentinel providers reported 116 visits (1.2% of all visits) to their practices for ILI during week 42. This is below the state baseline of 5.6%.

This same week last year, when influenza activity peaked late in October of 2009, the proportion of visits for ILI was 7.8%. In October of 2008, the proportion of visits for ILI was 0.2%.

For more information on the US Outpatient Influenza-like Illness Reporting Network (ILINet), please visit our website: http://dhmh.maryland.gov/fluwatch and click on "ILINet Sentinel Providers".

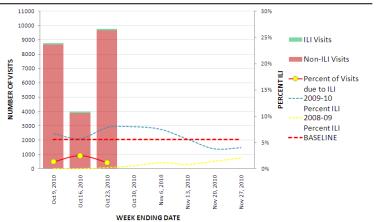


Figure 1. Number of visits and proportion of visits for ILI to ILINet sentinel providers, 2010-11 influenza season

CLINICAL LAB REPORTS OF RAPID FLU TESTING

During week 42, 19 clinical laboratories reported 3 (1.2%) of 255 rapid influenza tests as positive. Two were positive for type A, and one was positive for type B influenza. This proportion of positive tests was significantly lower than the proportion reported at this time last year, which was 24%, the highest proportion of positives reported for the 2009-10 season. Early in the season, when influenza is not very prevalent (established) in the community, rapid influenza tests tend to be less accurate than PCR tests or viral culture. So these results should be taken with that caveat.

Type of Positives	Number (%)
Type A	9 (82%)
Туре В	2 (18%)
Positive, but not typed	0
Total Positive	11 (100%)

Table 1. Number of positive rapid influenza tests, by type, reported by collaborating clinical laboratories, 2010-11 season

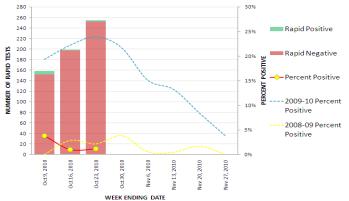


Figure 2. Number and result of rapid tests reported by clinical laboratories, 2010-11 influenza season.

GET VACCINATED!

Go to

http://dhmh.maryland.gov/swineflu/getVaccinated.html and find your local health department for more information.

MARYLAND RESIDENT INFLUENZA TRACKING SURVEY (MRITS)

During week 42, a total of 552 (35.7% of total) participants in the MRITS responded to the weekly survey. Of those who responded, 3 (0.5%) reported flu-like illness. This proportion is lower than this same week last season, when about 11% of respondents reported flu-like illness.

We are always looking for more participants for the MRITS. If you know someone who would like to participate, please direct them to our website: http://dhmh.maryland.gov/flusurvey. A mobile version of the site and other improvements are on the way.

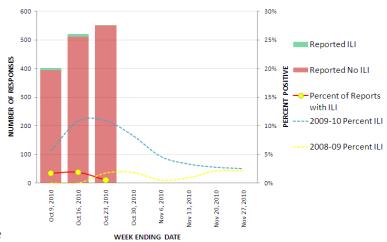


Figure 3. Number of responses and proportion reporting ILI to the MRITS by week, 2010-11 influenza season.

DHMH LABORATORIES ADMINISTRATION REPORTS

The DHMH Laboratories Administration performed a total of 28 PCR tests for influenza during week 42. None of those specimens were positive.

During the 2009-10 influenza season, the DHMH Labs Administration reported over 1,900 positive PCR tests for influenza, with 99% of them being the H1N1 pandemic strain. At one point last season, the lab performed over 1,000 tests in one week, and over half of those tests were positive.

For more information on the valuable work done by the DHMH Laboratories Administration, visit their website at http://dhmh.maryland.gov/labs.

Influenza Type	Number (%)
TYPE A	0
H1 (Seasonal and Pandemic)	1 (100%)
НЗ	0
Unsubtyped	0
ТҮРЕ В	0
TOTAL	1 (100%)

Table 1. Number of respiratory samples positive for influenza by PCR reported by the DHMH Labs Administration, 2010-11 influenza season

EIP INFLUENZA HOSPITALIZATION SURVEILLANCE

During week 42, three hospitalizations associated with influenza were reported to the Emerging Infections Program (EIP). Two of those hospitalized were over the age of 65, and one was in the 5 to 17 age group. To be a confirmed hospitalization associated with influenza, the person must be hospitalized and have a positive influenza test of any kind (rapid test, PCR, culture).

This week last year, a total of 281 hospitalizations were reported as influenza activity was peaking in Maryland. That same season, over 1,400 hospitalizations associated with influenza were reported to EIP.

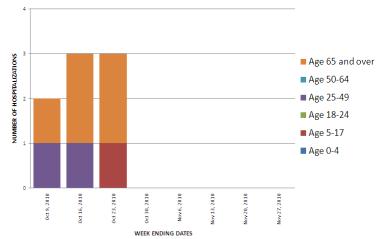


Figure 4. Number of hospitalizations associated with influenza, by age group and week, reported to the Emerging Infections Program, 2010-11 influenza season

DID YOU KNOW?

Flu is not the only thing to worry about during the winter. Pneumococcal infection can be a complication of influenza. Children at increased risk of pneumococcal infections include those with anatomic or functional asplenia (including sickle cell disease), patients taking immunosuppressive chemotherapy, those with congenital and acquired immune deficiency (including HIV infections), those with chronic renal disease and healthy Native American, Alaskan Native, and African American children. Children less than 60 months of age in out-of-home child care are at 2-3 fold higher risk of experiencing invasive pneumococcal infections than children in home care.

REPORTS OF OUTBREAKS IN INSTITUTIONAL SETTINGS

No outbreaks of influenza, influenza-like illness, or pneumonia were reported to DHMH during week 42. Last season, a total of 208 outbreaks of respiratory illness were reported between week 40 of 2009 and week 20 of 2010. Of those, 33 were confirmed as influenza outbreaks. Institutional settings include schools, hospitals, colleges and universities, and long-term care locations. An outbreak of ILI is re-classified as an outbreak of influenza if there is laboratory evidence of influenza virus present in the samples collected from case-patients in the outbreak.

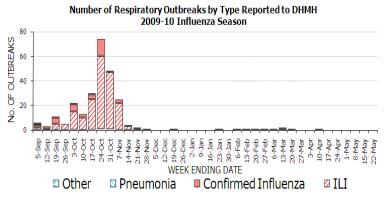


Figure 5. Number of outbreaks reported by week and by type during the 2009-10 influenza season. There have been no outbreaks of respiratory disease reported, 2010-11 influenza season.

EMERGENCY DEPARTMENT ILI REPORTS (ESSENCE)

During week 42, a total of 41,363 visits to emergency departments for all reasons were reported to the Office of Preparedness and Response through the ESSENCE system. Of those visits, 470 (1.1%) were for influenza-like illness. This is about the same proportion reported at this time during the 2008-09 influenza season, and much lower than the 12.1% reported at this time last season (2009-10). For more information on ESSENCE, please visit the Office of Preparedness and Response's web site at: http://bioterrorism.dhmh.state.md.us.

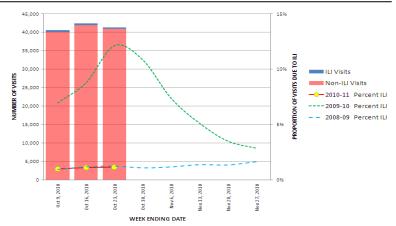


Figure 6. Number and proportion of visits to emergency departments for ILI by week reported through ESSENCE, 2010-11 influenza season.

GOOGLE FLU TRENDS

According to Google, influenza activity in Maryland is currently "LOW". What does this mean? From the Google Flu Trends Website: "We have found a close relationship between how many people search for flurelated topics and how many people actually have flu symptoms. Of course, not every person who searches for 'flu' is actually sick, but a pattern emerges when all the flu-related search queries are added together. We compared our query counts with traditional flu surveillance systems and found that many search queries tend to be popular exactly when flu season is happening. By counting how often we see these search queries, we can estimate how much flu is circulating in different countries and regions around the world."

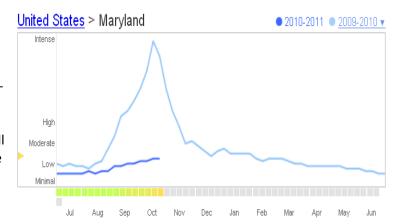


Figure 7 – According to Google Flu Trends, influenza activity in Maryland is currently "low". At this time last year, during the 2009 H1N1 influenza pandemic, influenza activity in Maryland was "high" to "intense".

DID YOU KNOW?

Vaccination with the nasal-spray flu vaccine is an option for healthy people 2-49 years of age who are not pregnant. Even people who live with or care for those in a high risk group (including health care workers) can get the nasal-spray flu vaccine as long as they are healthy themselves and are not pregnant. The **one exception** is health care workers who care for people with severely weakened immune systems who require a protected hospital environment; these people should get the inactivated flu vaccine (flu shot).

OFFICE OF INFECTIOUS DISEASE EPIDEMIOLOGY AND OUTBREAK RESPONSE

201 W. PRESTON ST.

BALTIMORE, MD 21201

PHONE: 401-767-6700

FAX: 410-669-4215

VISIT US ON THE WEB:

HTTP://DHMH.MARYLAND.GOV

ALL THE INFORMATION INCLUDED IN THIS REPORT IS PROVISIONAL AND SUBJECT TO CHANGE AS MORE DATA ARE RECEIVED FROM SURVEILLANCE SOURCES.

THE INFORMATION INCLUDED IN THIS REPORT IS NOT INTENDED TO BE USED FOR INDIVIDUAL DIAGNOSES.

ONLINE VERSION OF THIS REPORT AND PAST SEASONS' REPORTS MAY BE DOWNLOADED AT:

DHMH.MARYLAND.GOV/FLUWATCH

FLU SURVEILLANCE IN NEIGHBORING STATES:

DELAWARE-

HTTP://BIT.LY/9Zkp3

DC-

http://tinyurl.com/yj7br9e

PENNSYLVANIA-

http://tinyurl.com/37323xn

VIRGINIA-

http://tinyurl.com/kmnaeu

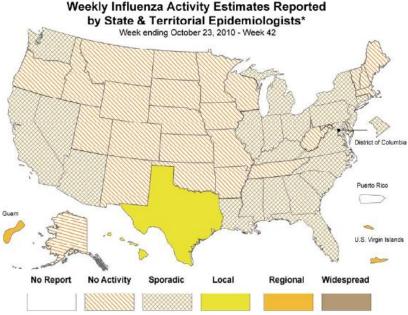
WEST VIRGINIA-

http://tinyurl.com/2u53nuc

CDC NATIONAL INFLUENZA SURVEILLANCE REPORT (http://cdc.gov/flu/weekly)

During week 42 (October 17-23, 2010), influenza activity remained low in the United States.

- Forty-eight (3.0%) specimens tested by U.S. World Health
 Organization (WHO) and National Respiratory and Enteric Virus
 Surveillance System (NREVSS) collaborating laboratories and
 reported to CDC/Influenza Division were positive for influenza.
- The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.
- No influenza-associated pediatric deaths were reported.
- The proportion of outpatient visits for influenza-like illness (ILI) was below the national baseline. All 10 regions reported ILI below region-specific baseline levels, and all 50 states experienced minimal ILI activity.
- Geographic spread of influenza in Guam and the U.S. Virgin Islands was assessed as regional; two states reported local influenza activity; the District of Columbia and 22 states were assessed as sporadic; 26 states reported no influenza activity, and Puerto Rico did not report.



Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2010-11 Season

